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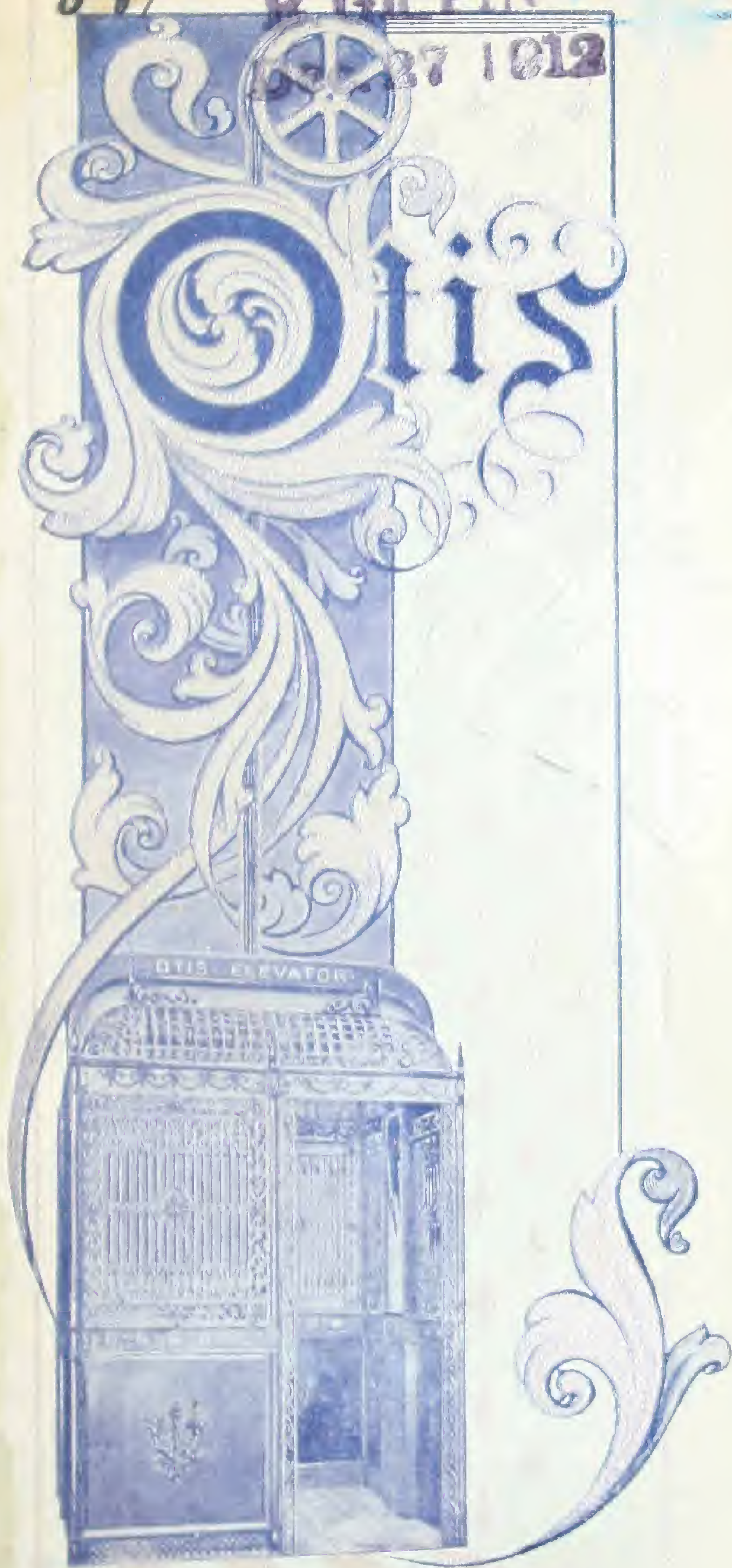
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R. GILPIN

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Electric Elevators





The Otis Elevator Industry

Comprises
large manu-
facturing
plants in
principal
cities
in the
United States
Great Britain
and France



THE OTIS ELEVATOR COMPANY
NEW YORK, N. Y.

Otis Elevator Company



17 Battery Place, New York, N. Y.
9 Jackson Boulevard, Chicago, Ill.

Offices in the principal cities
of the United States



Otis-Penson Elevator Company
Limited

Main Office: Confederation Building, Toronto
Works: Hamilton

Offices in the Principal Cities of Canada

Otis Elevator Company, *Limited*

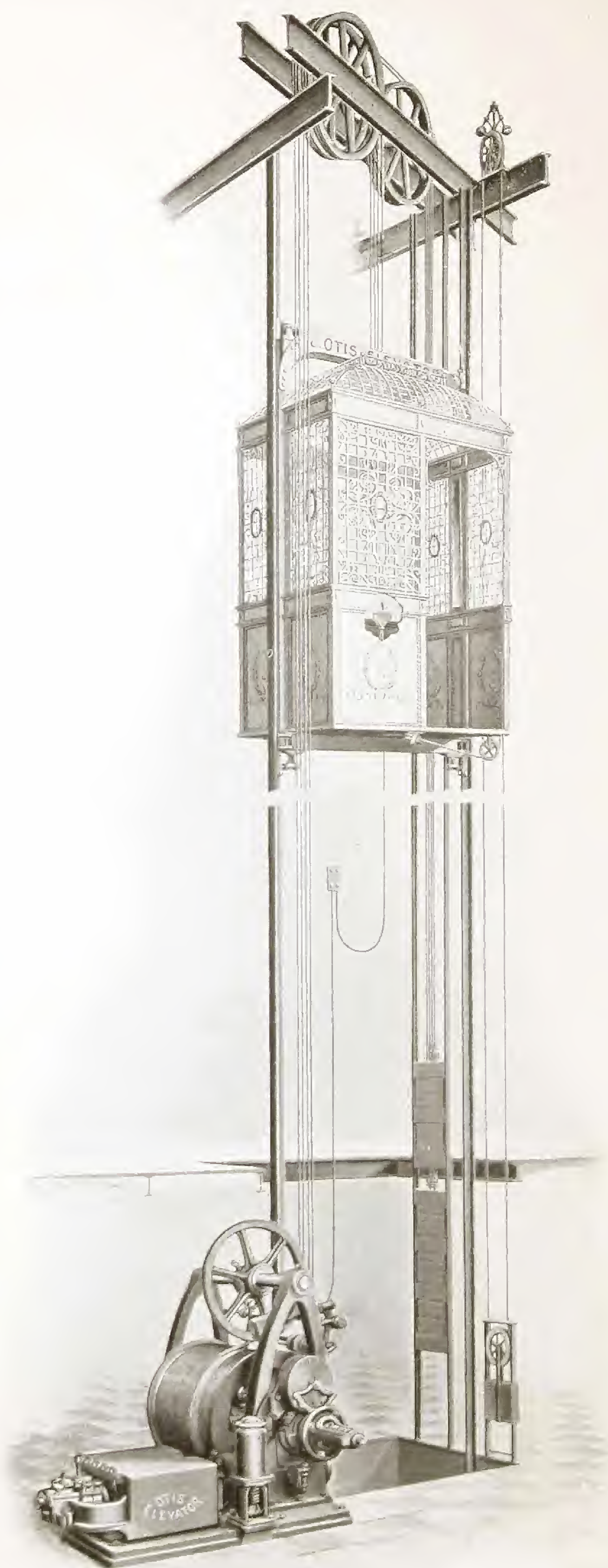
4 Queen Victoria Street
London, E. C., England

Cie Française des Ascenseurs Otis

17 Rue de Hambourg, Paris, France

Hans von Adelson

W. Leipziger Str. 124, Berlin, Germany



Our Electric Passenger Elevator

Electric Passenger Elevator



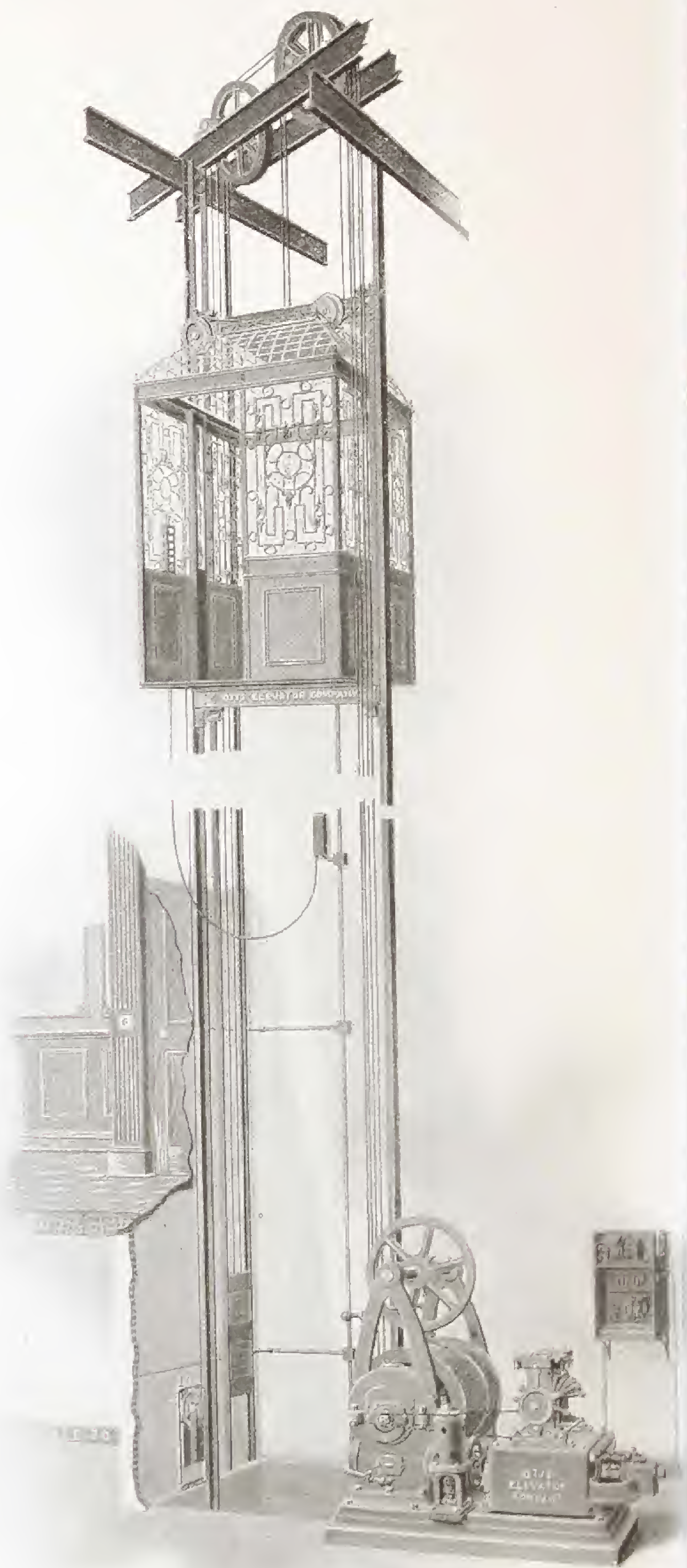
THE opposite illustration shows the electric passenger elevator operated and controlled by the magnet control and lever switch in the car. We use, instead of the magnet system, where high speed of service is not required, the hand cable controller.

We build this machine for both passenger and freight service, changing the style and type of the engine as requirements demand.

All of our engines are fitted with our positive automatic stop, bringing the car to a standstill at the upper and lower terminals,

independently of the operator in the car: all of our elevators have the Otis speed governor safety device, tested by actual use for over thirty years. Its action and control of the safety apparatus is entirely independent of the breaking of the lifting cables. We describe and illustrate the safety speed governor on pages 16, 17 and 18.

The Otis electric elevator engines have passed beyond the stage of experiment, having now been on the market some sixteen years, during which time we have installed over fifteen thousand electric passenger and freight elevators. Lists of many users of the different types of these machines can be obtained upon application at any of our branch offices throughout the United States, Canada, England, France, Germany and other foreign countries.



OTIS Electric Passenger Elevator, with
Push-button Control

Electric Passenger Elevators for Private Residences

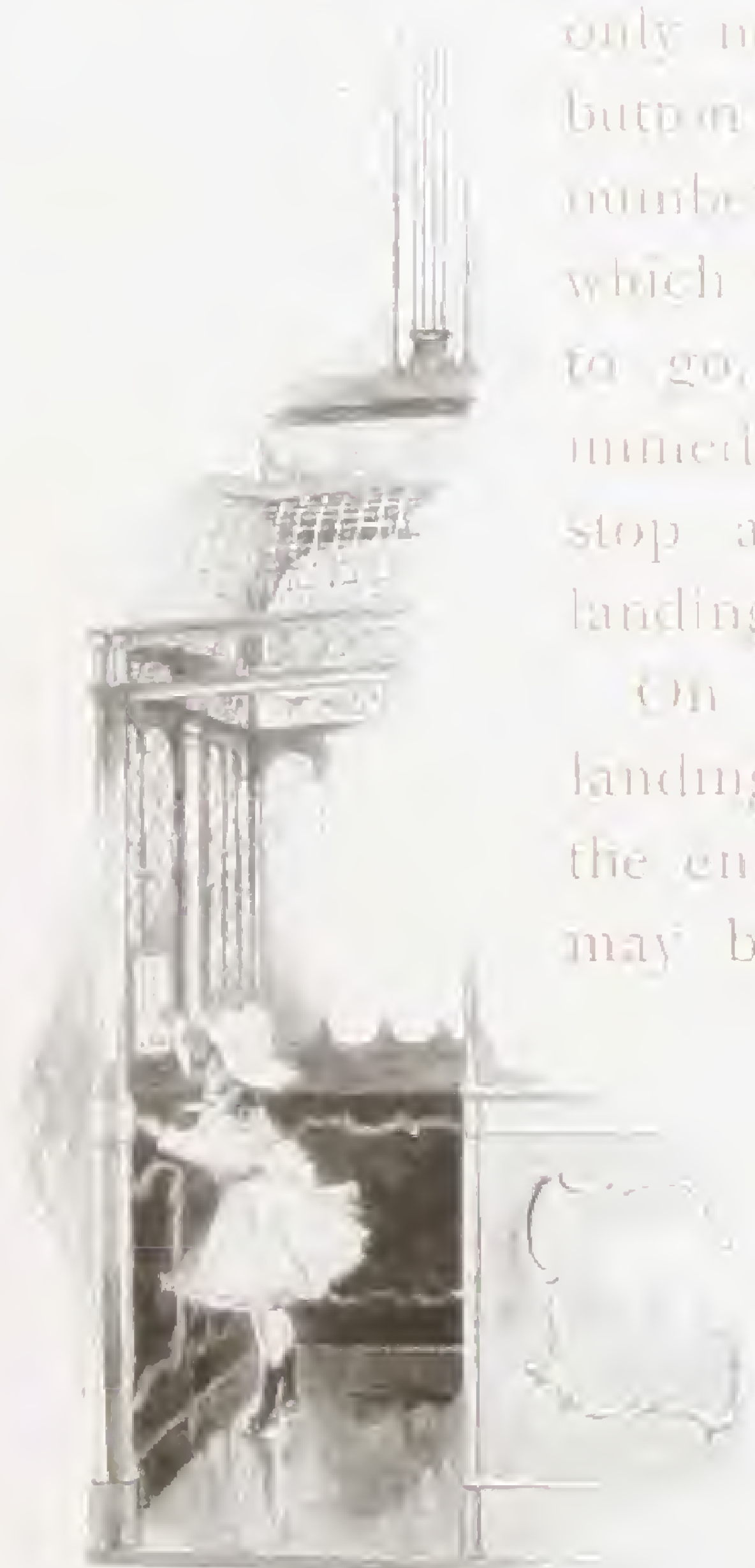
This is an Otis specialty, and is now regarded as an essential feature of every fine residential establishment. These elevators are built to be operated by push buttons at the landing doors and in the car.

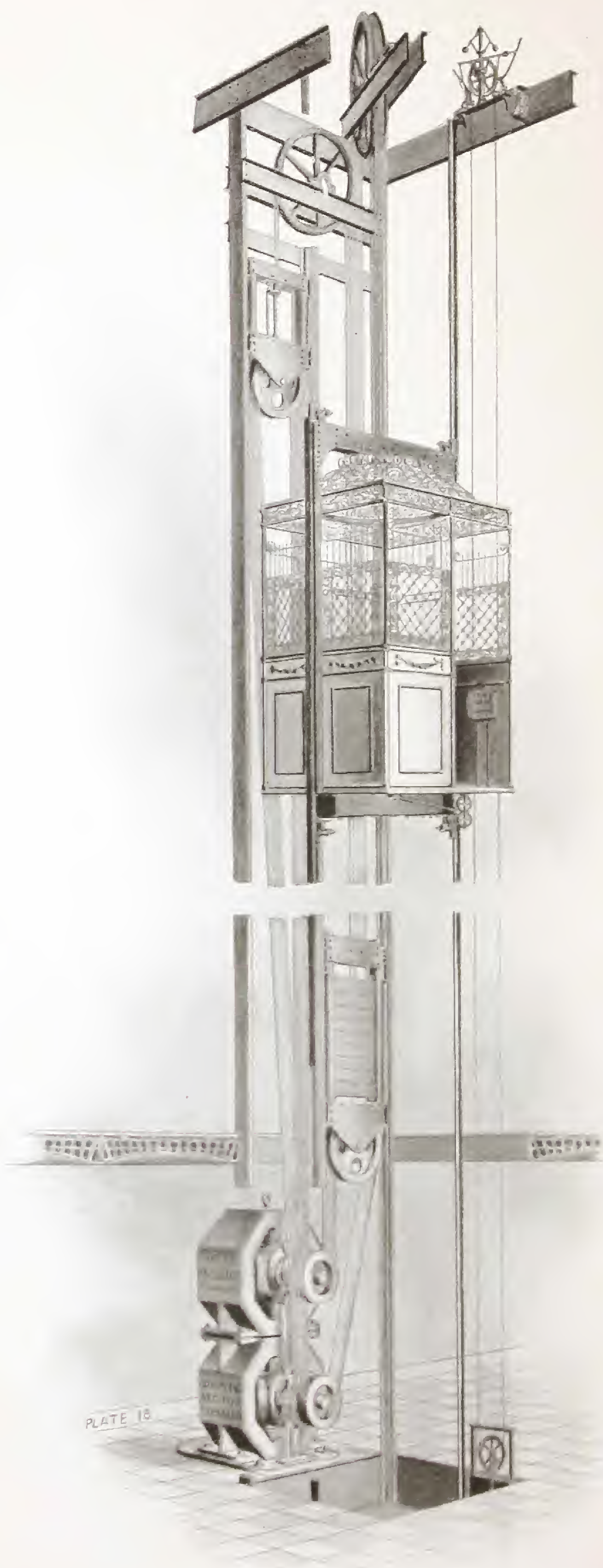
If it is desired to bring the car to a particular landing, it is only necessary to press the button connected to the door at that landing. This will bring the car to the landing, when the door may be opened, and while open the car cannot be removed from the landing. There is a system of automatic door-locking devices connected with the operating mechanism of the elevator. The car is provided with a series of buttons corresponding in number to the number of the floor landings. On entering the car and closing the door, it is

only necessary to push the button corresponding to the number of the floor to which the passenger desires to go, when the car will immediately proceed to and stop automatically at that landing.

On reaching the desired landing, and then only, the entrance landing door may be opened from the car.

The system is complete, simple, positive in operation and affords absolutely safe elevator service.





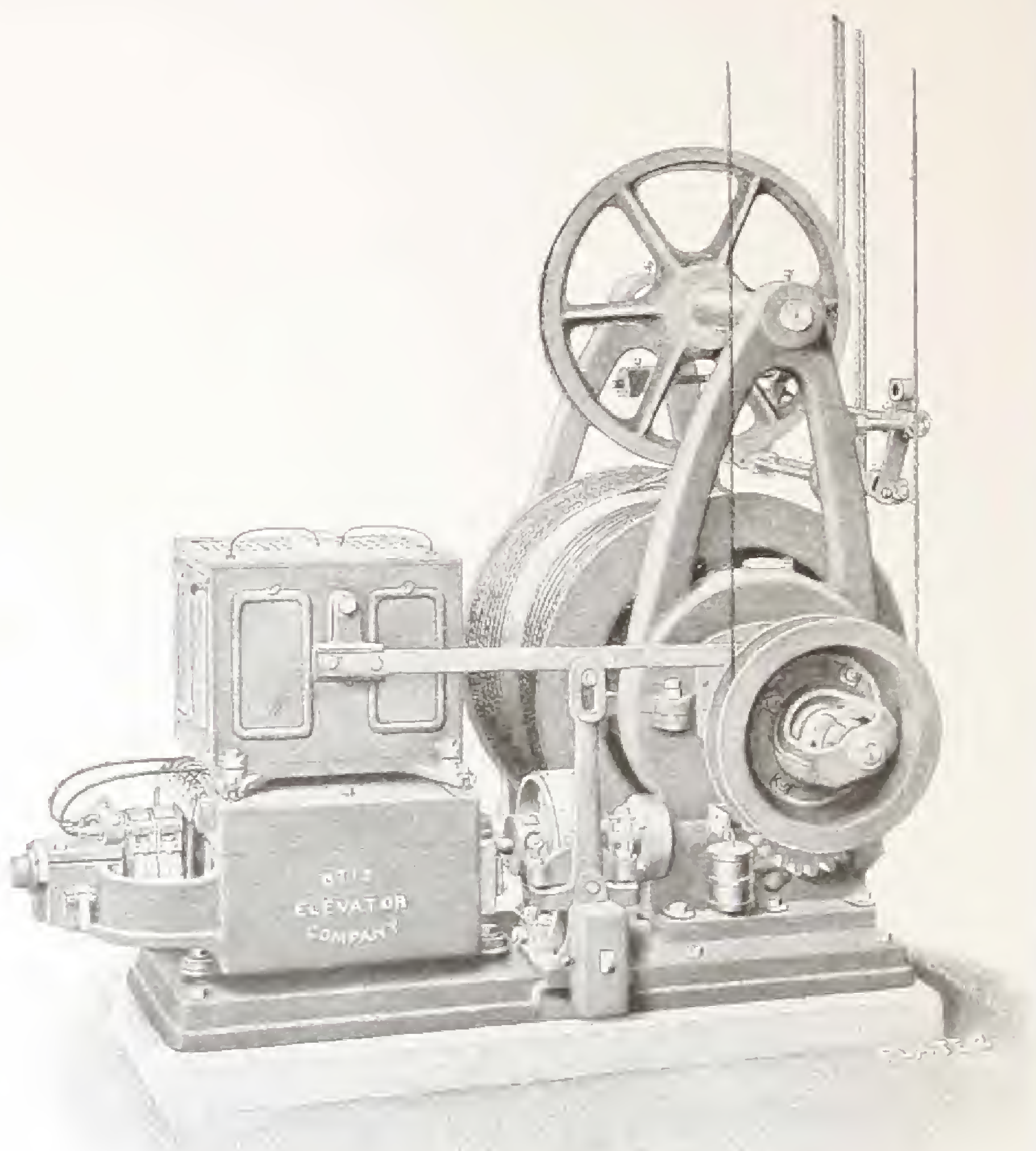


Electric Elevator

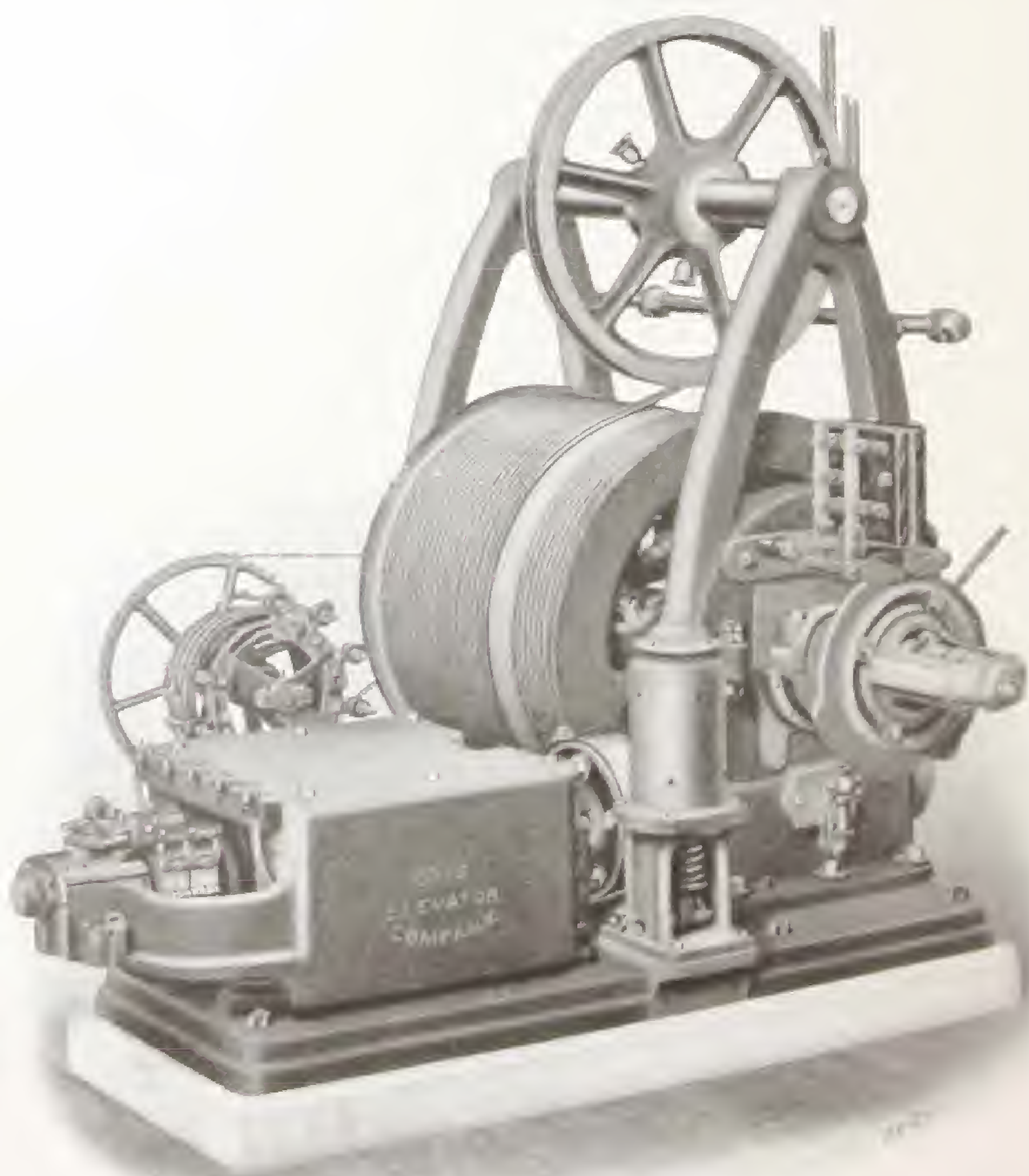
Duplex Motor

The Duplex Motor Electric Elevator illustrated on opposite page is specially adapted for high-speed passenger service. A car speed of 600 feet or more per minute, in either direction, is readily obtained, and the stops are made at the various floors without shock or jar while running at the highest speed. In the Duplex Motor Elevator, gearing of any kind has been eliminated, the ropes leading from the sheaves on the armature shafts of the motors, thence to the car, giving absolute ease of motion obtained in no other electric elevator. The elevator is operated and controlled by electric devices, and every safety feature is employed to give perfect service.

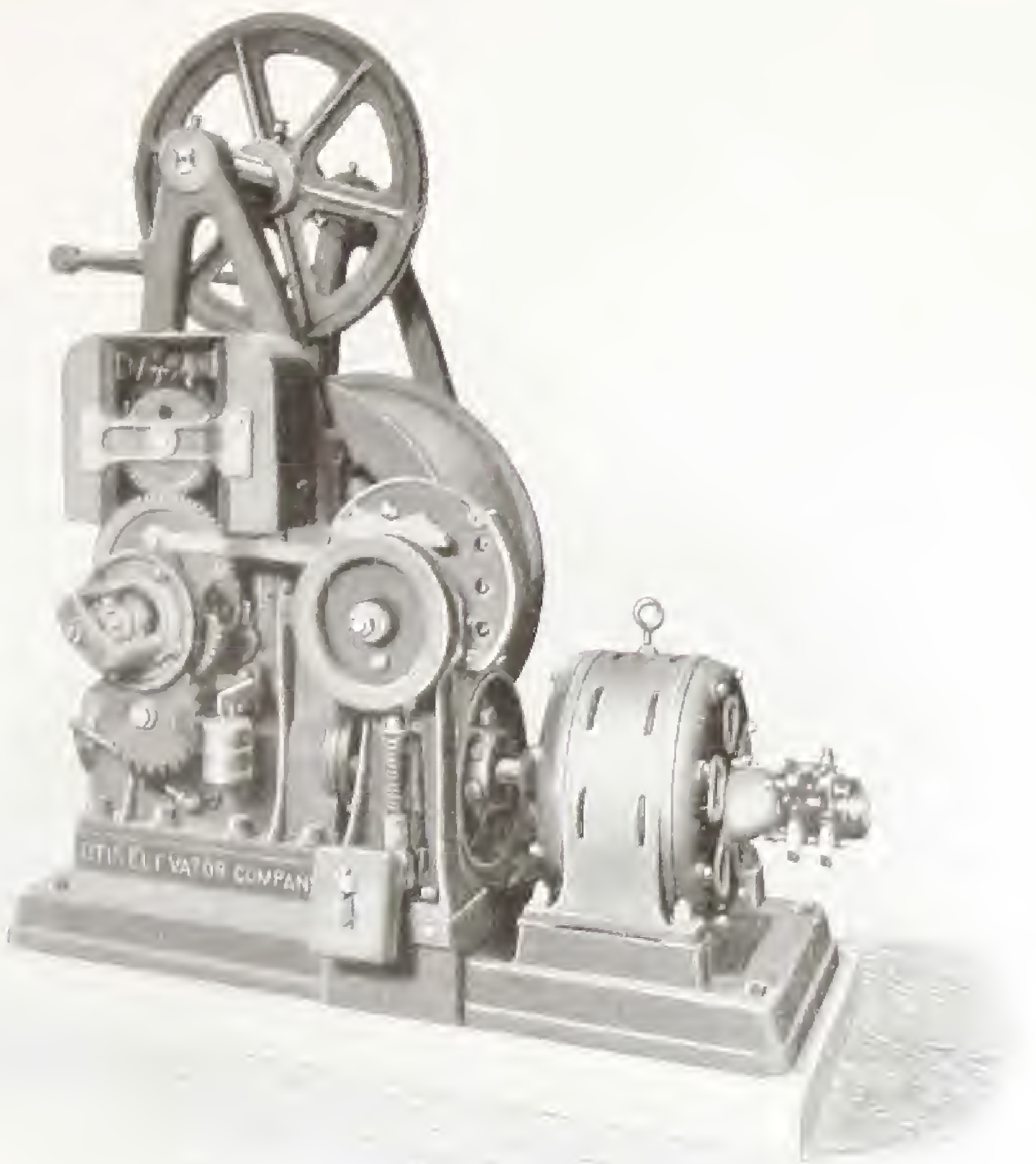
We build these machines having a lifting capacity of 3000 to 5000 pounds, and a car speed of 400 to 800 feet per minute.



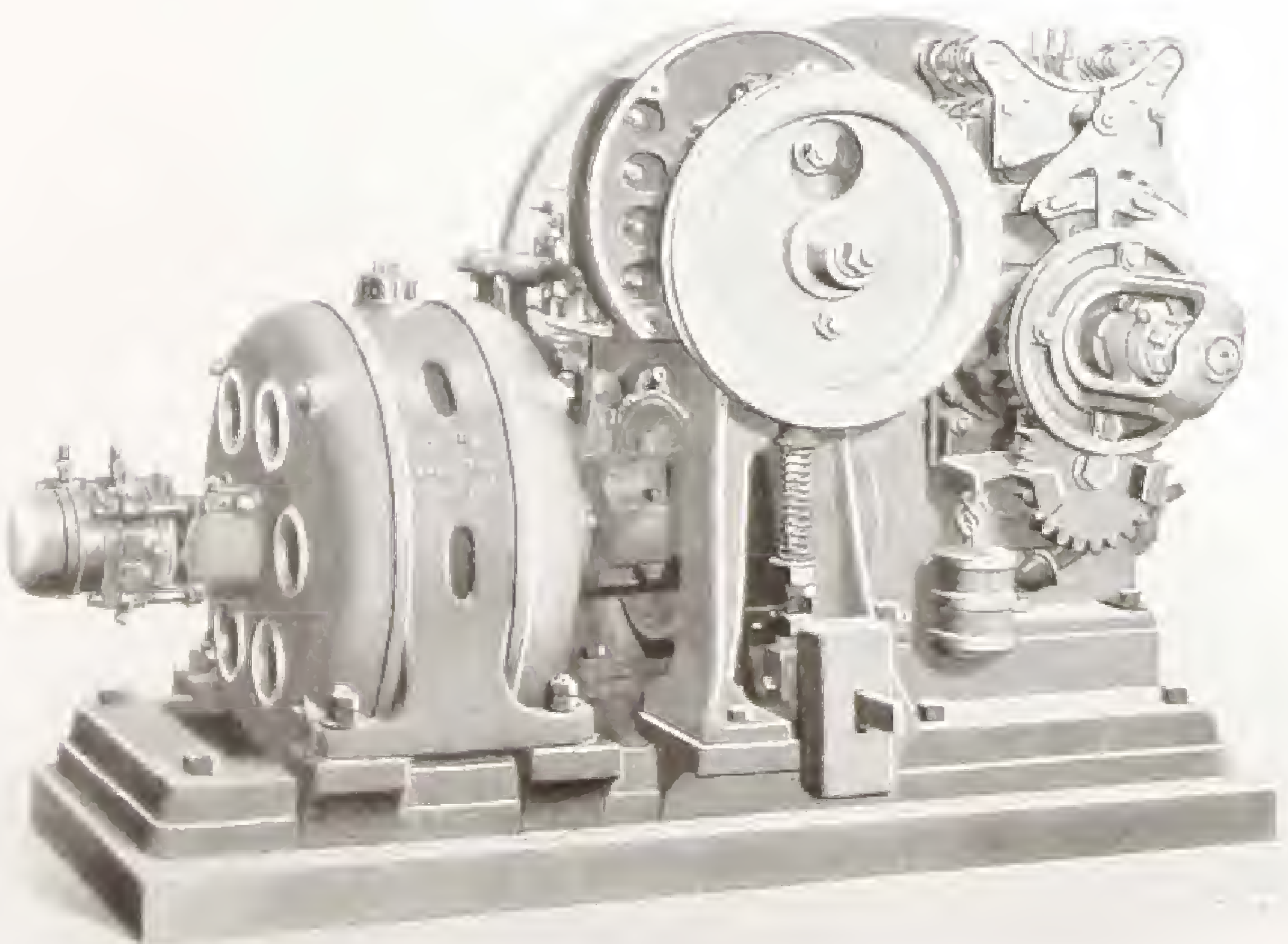
The Otis Electric Elevator Engine for passenger or freight service, with hand cable or other mechanical control.



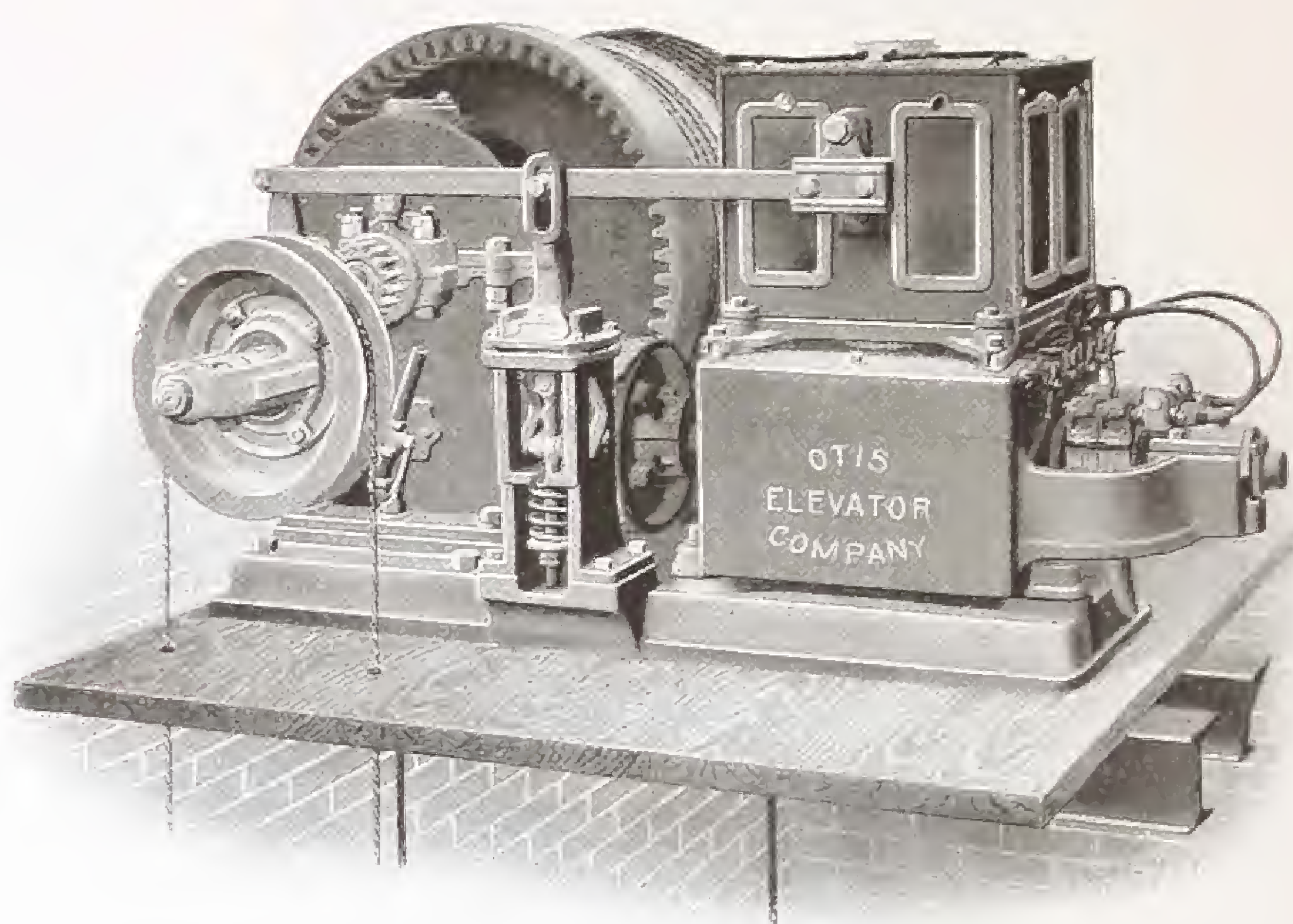
The Otis Electric Elevator Engine for passenger service, with automatic floor controller.



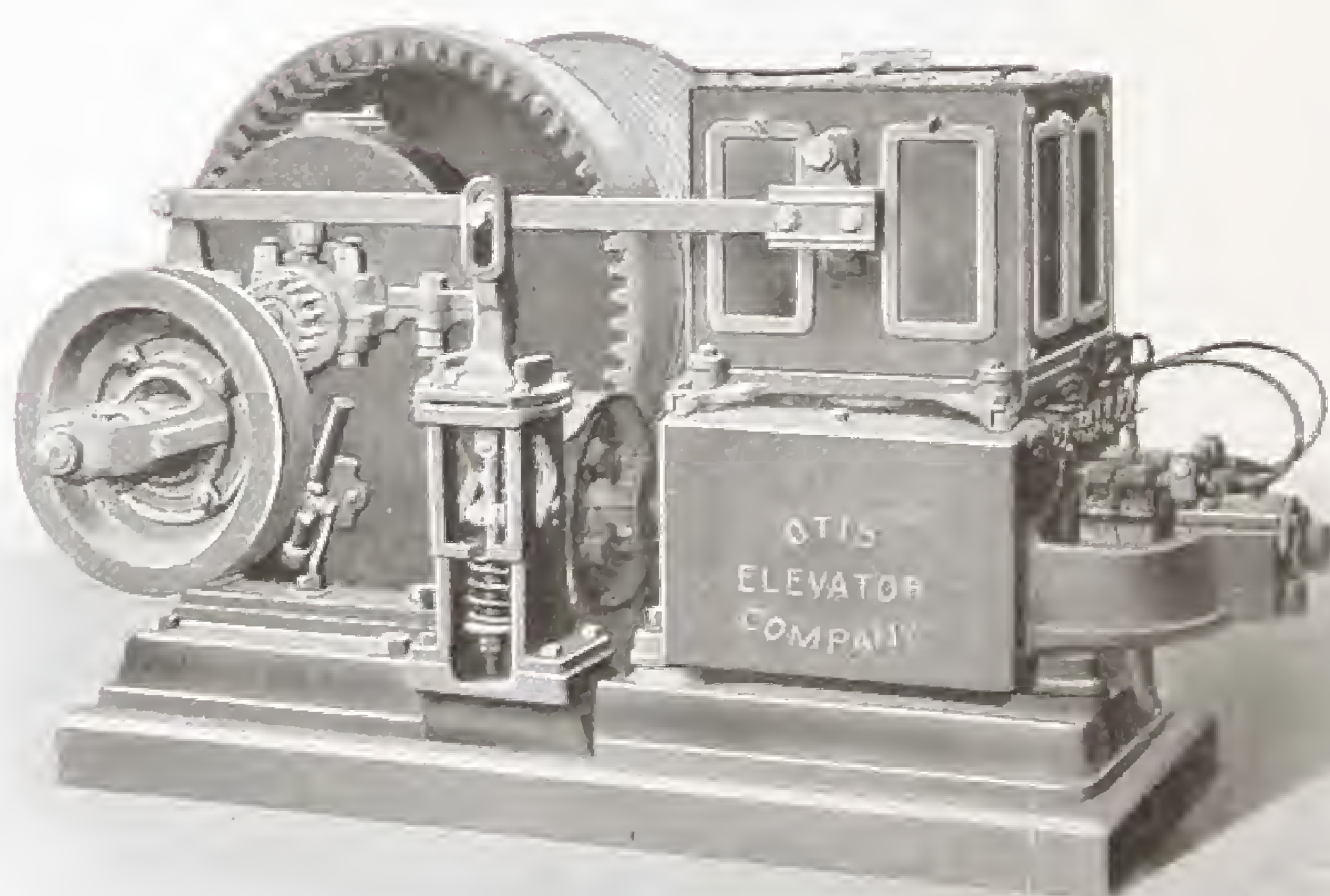
The Otis Electric Elevator Engine for passenger or freight service, with alternating current motor. Controlled by hand cable, mechanical or electrical device.



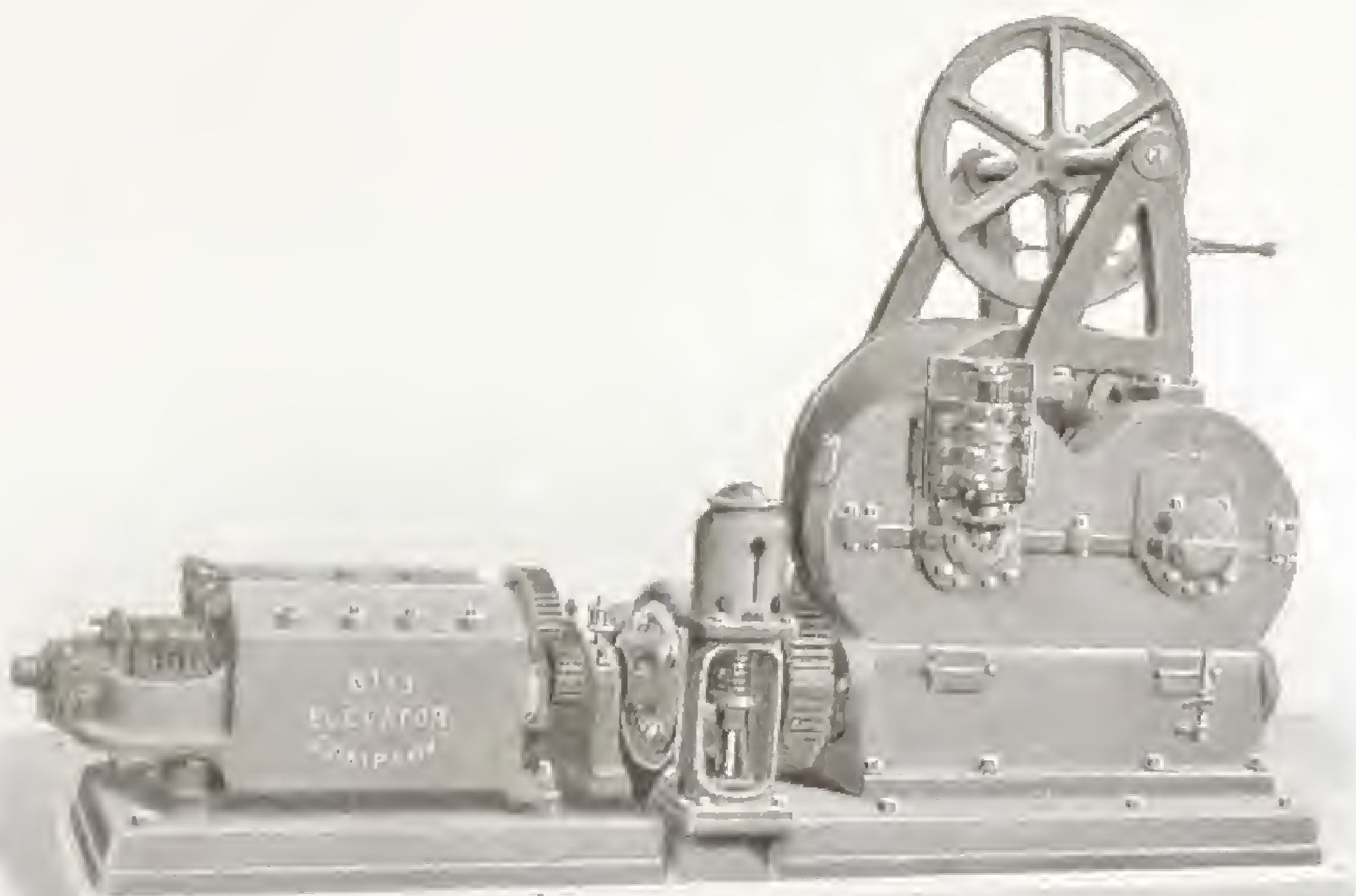
The Otis Electric Elevator Engine for passenger or freight service, with alternating current motor. Controlled by hand cable or mechanical device.



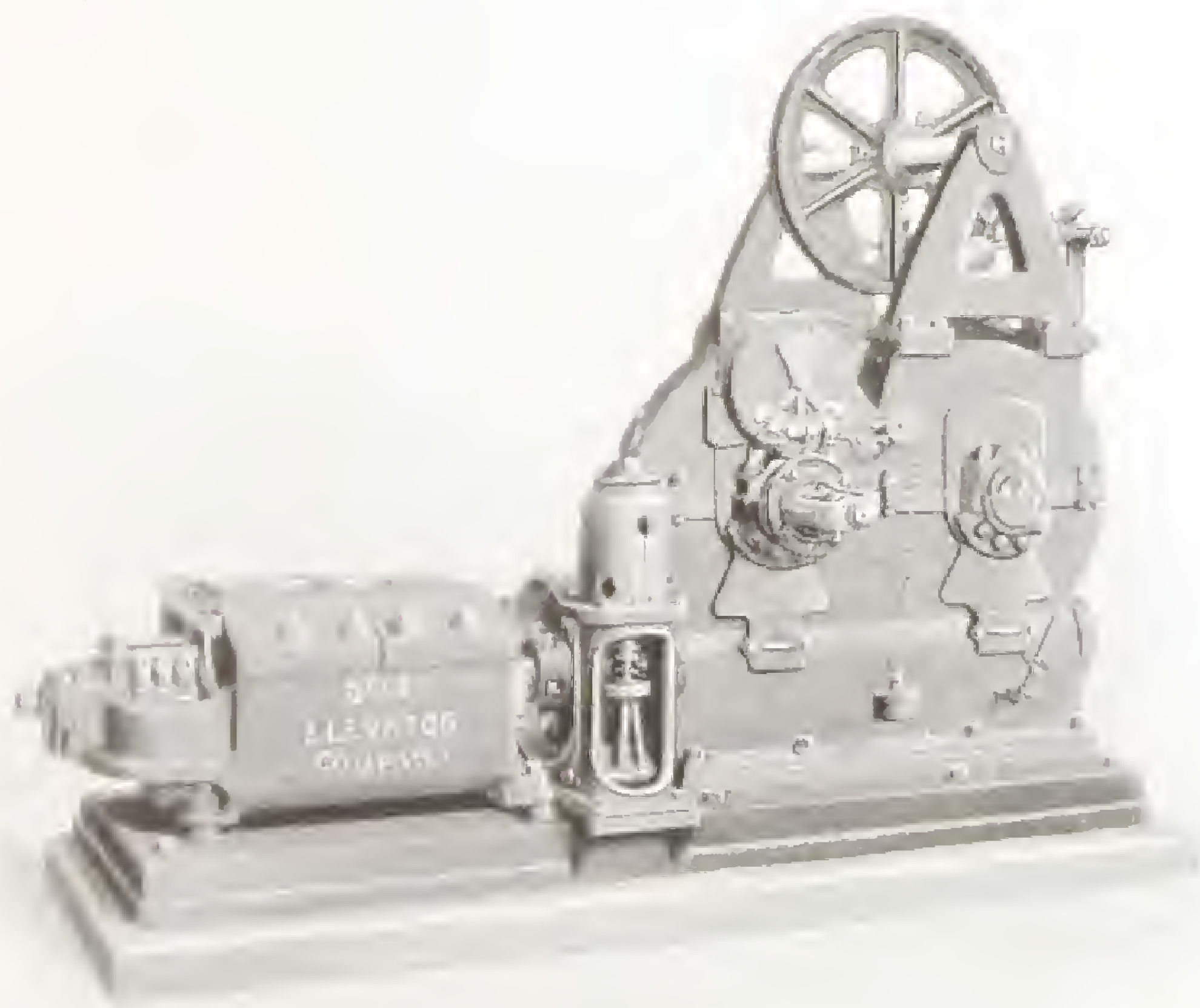
The Otis Electric Elevator Engine (internal gear) for freight service. Built for placing over the hatchway. With hand cable or other mechanical control.



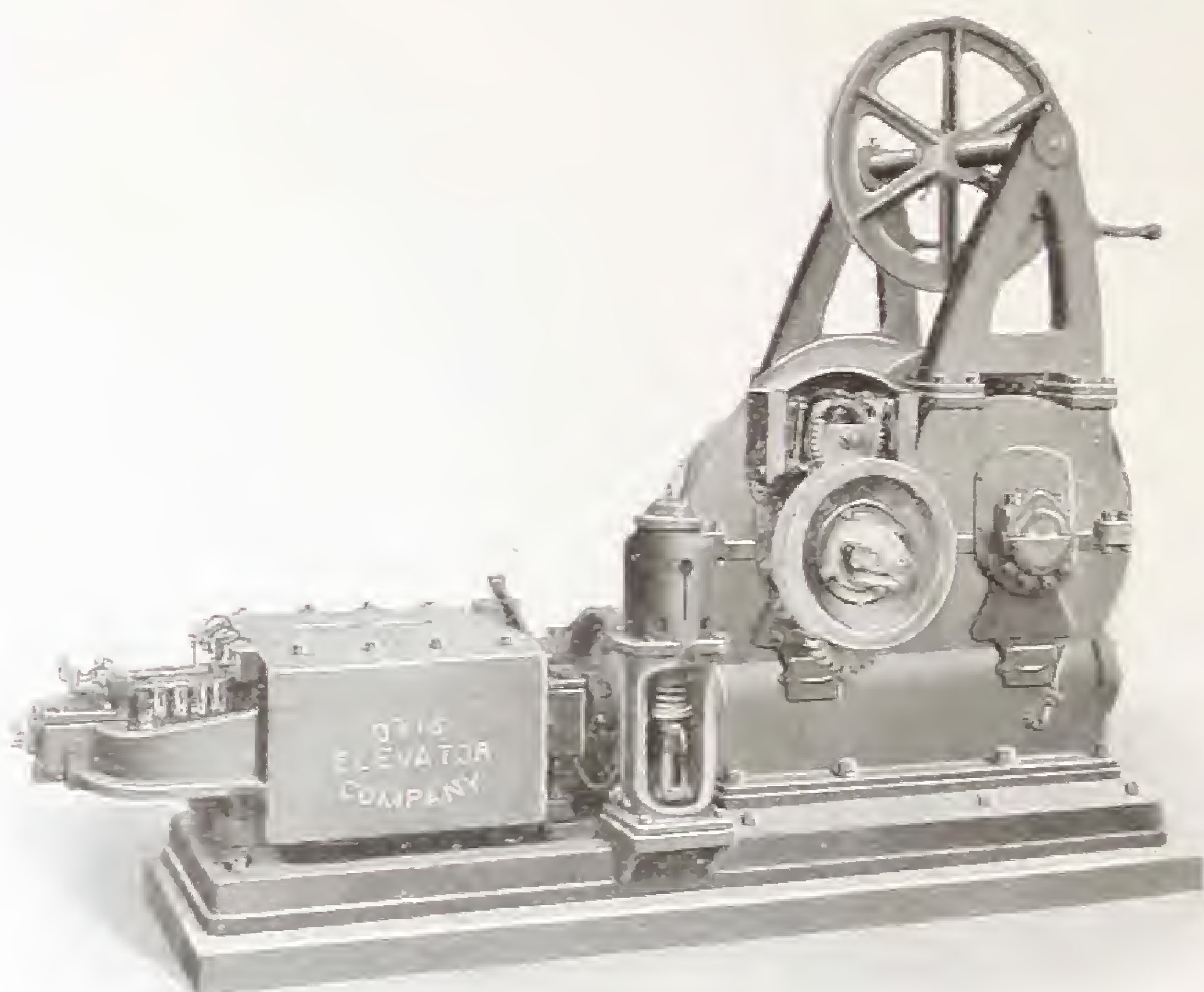
The Otis Electric Elevator Engine (internal gear) for freight service, with hand cable or other mechanical control.



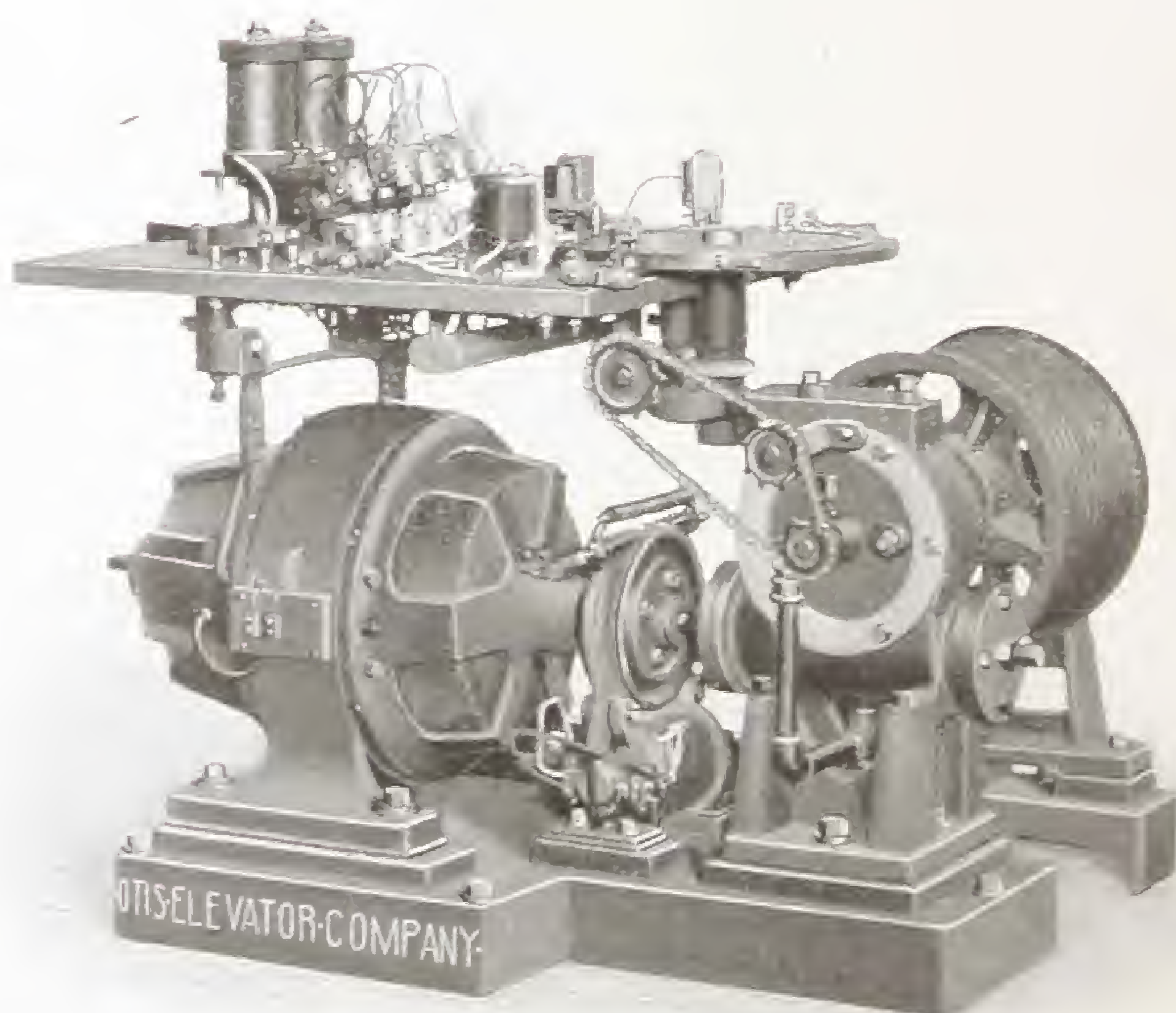
The Otis Electric Elevator Engine for passenger and freight service. Duplex worm and gear. With back gear attachment for safe lifting, etc. Controlled by mechanical or electrical device.



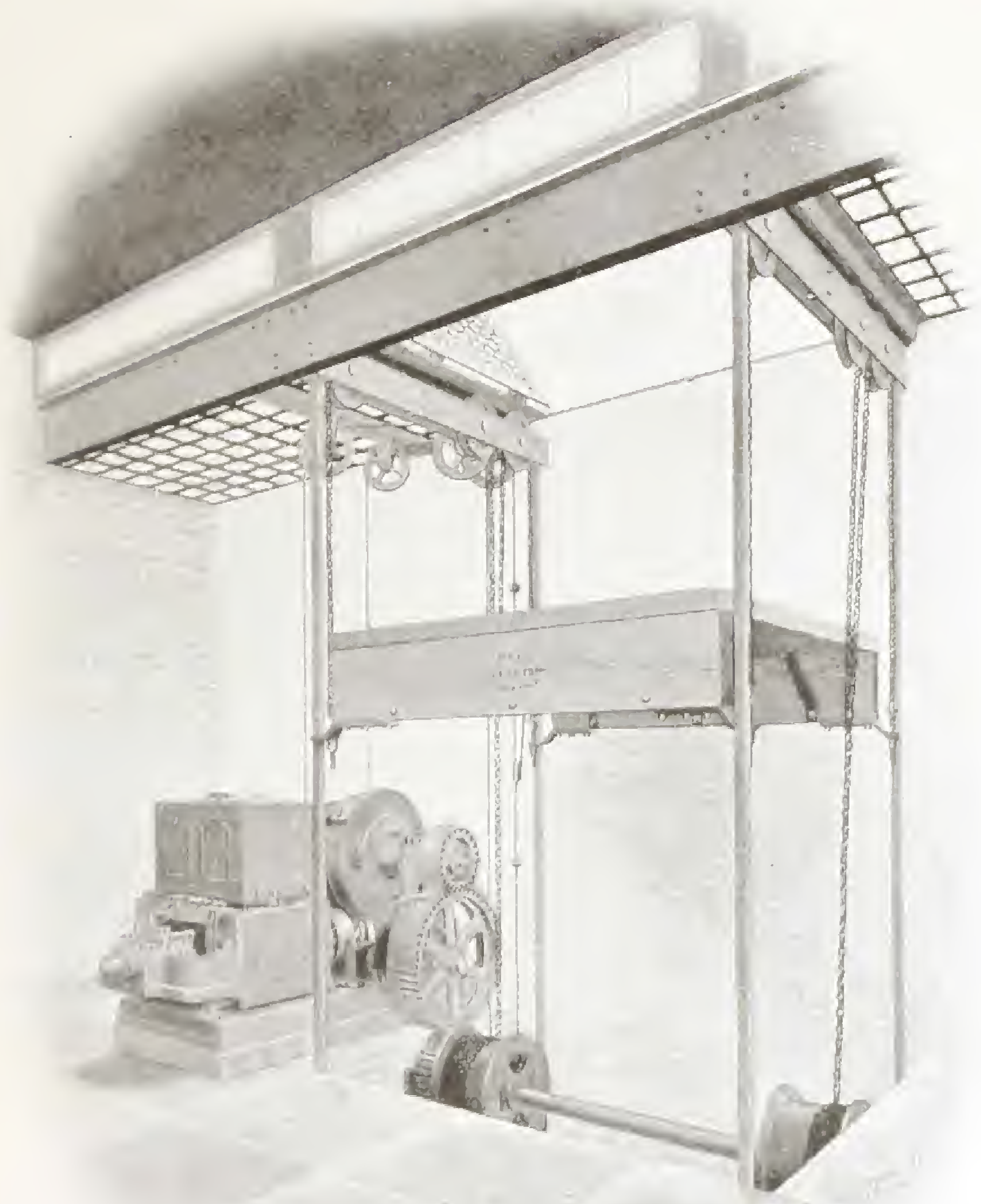
The Otis Electric Elevator Engine for passenger or freight service. Duplex worm and gear. Controlled by mechanical or electrical device.



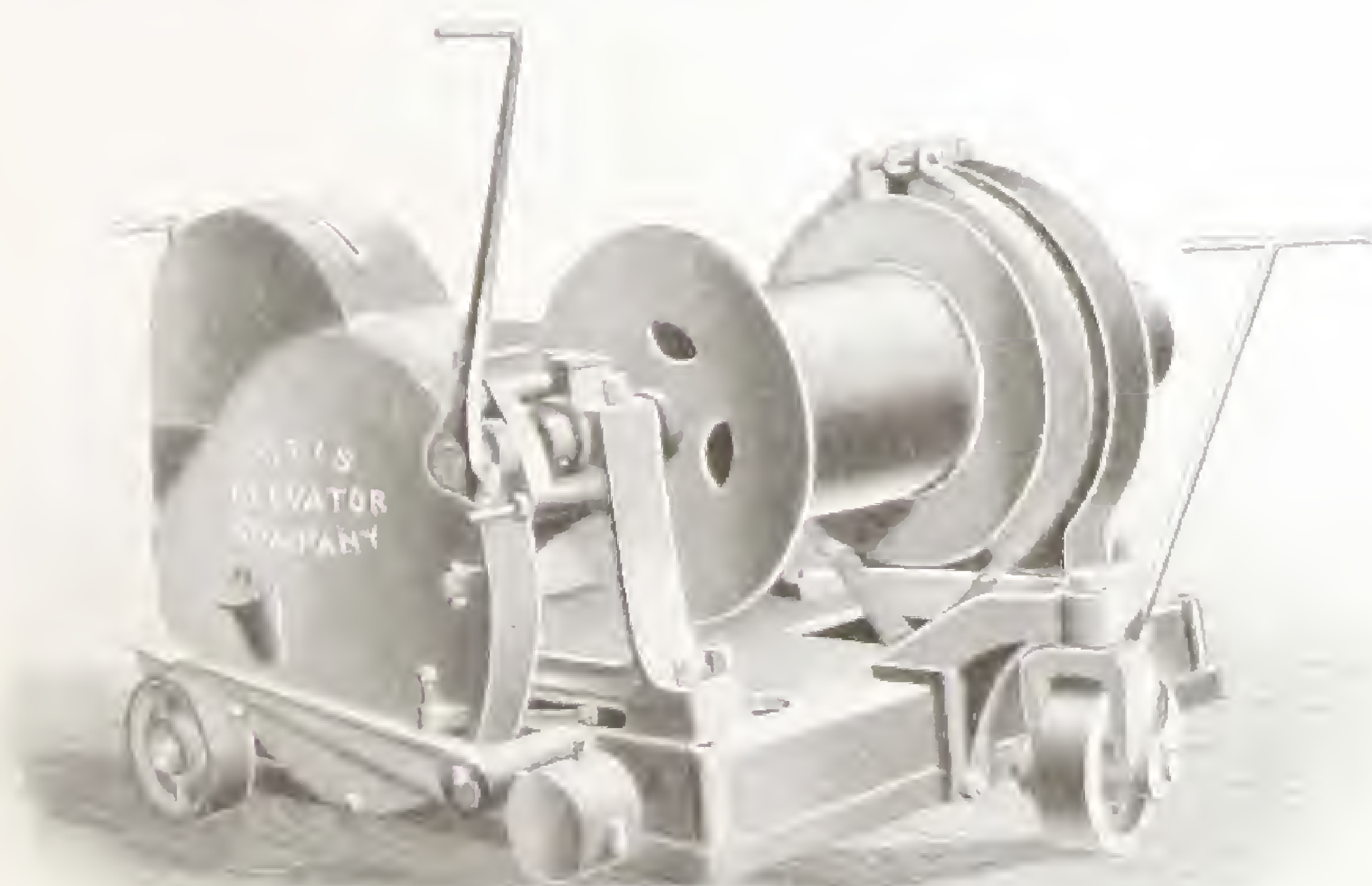
The Otis Electric Elevator Engine for passenger or freight service. Duplex worm and gear. Controlled by wheel or other mechanical device.



The Otis Electric Engine for dumb-waiter service, with automatic push-button controlling device. We also build these electric dumb waiters with mechanical control.



The 615 Electric Elevator Engine for sidewalk hoist, with mechanical control.



The 615 Electric Portable Dock Hoist. Wheels may be removed and the apparatus bolted to foundation for stationary use.



Wedge Clamp Safety Device

Otis Safety Governor

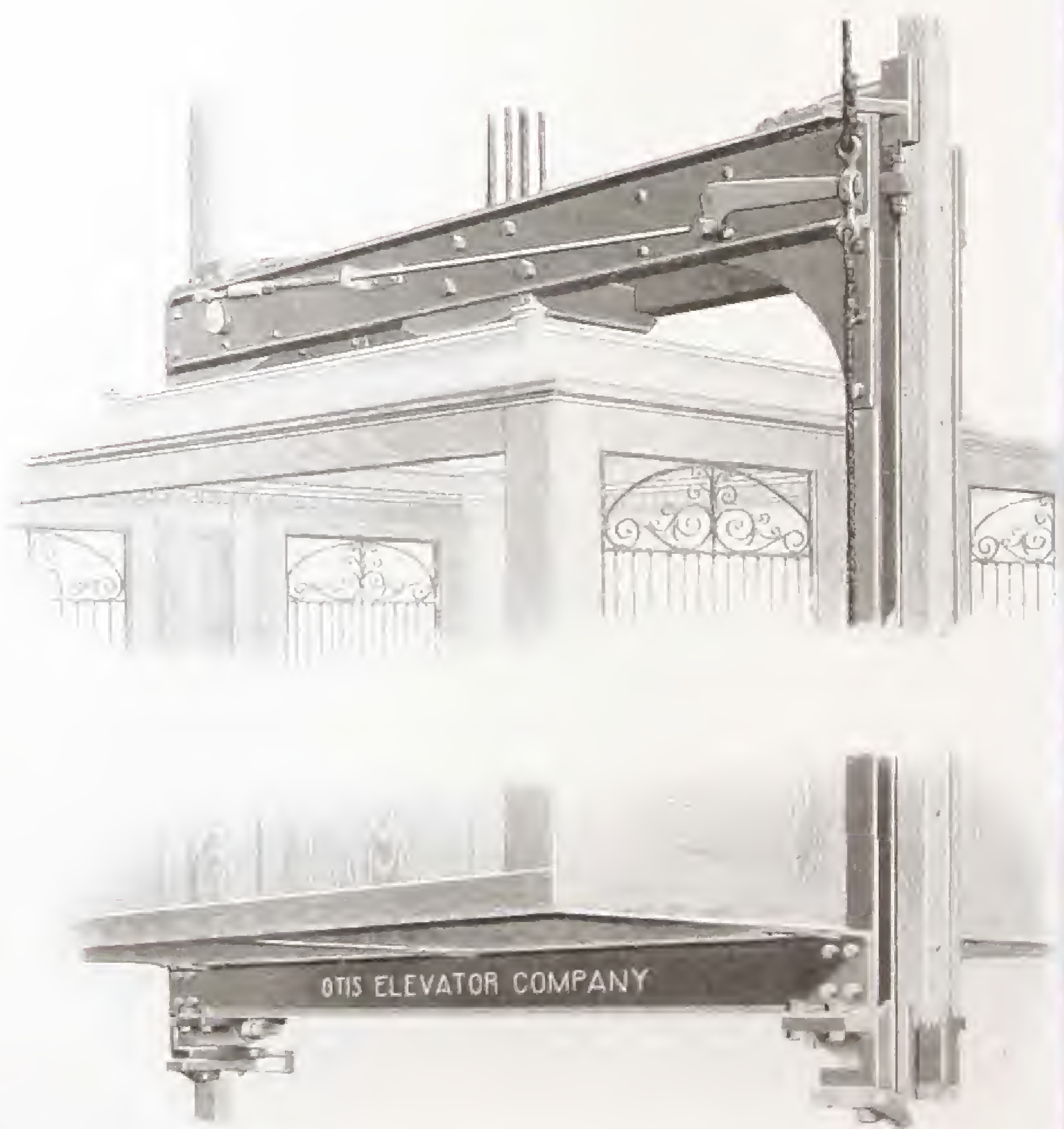
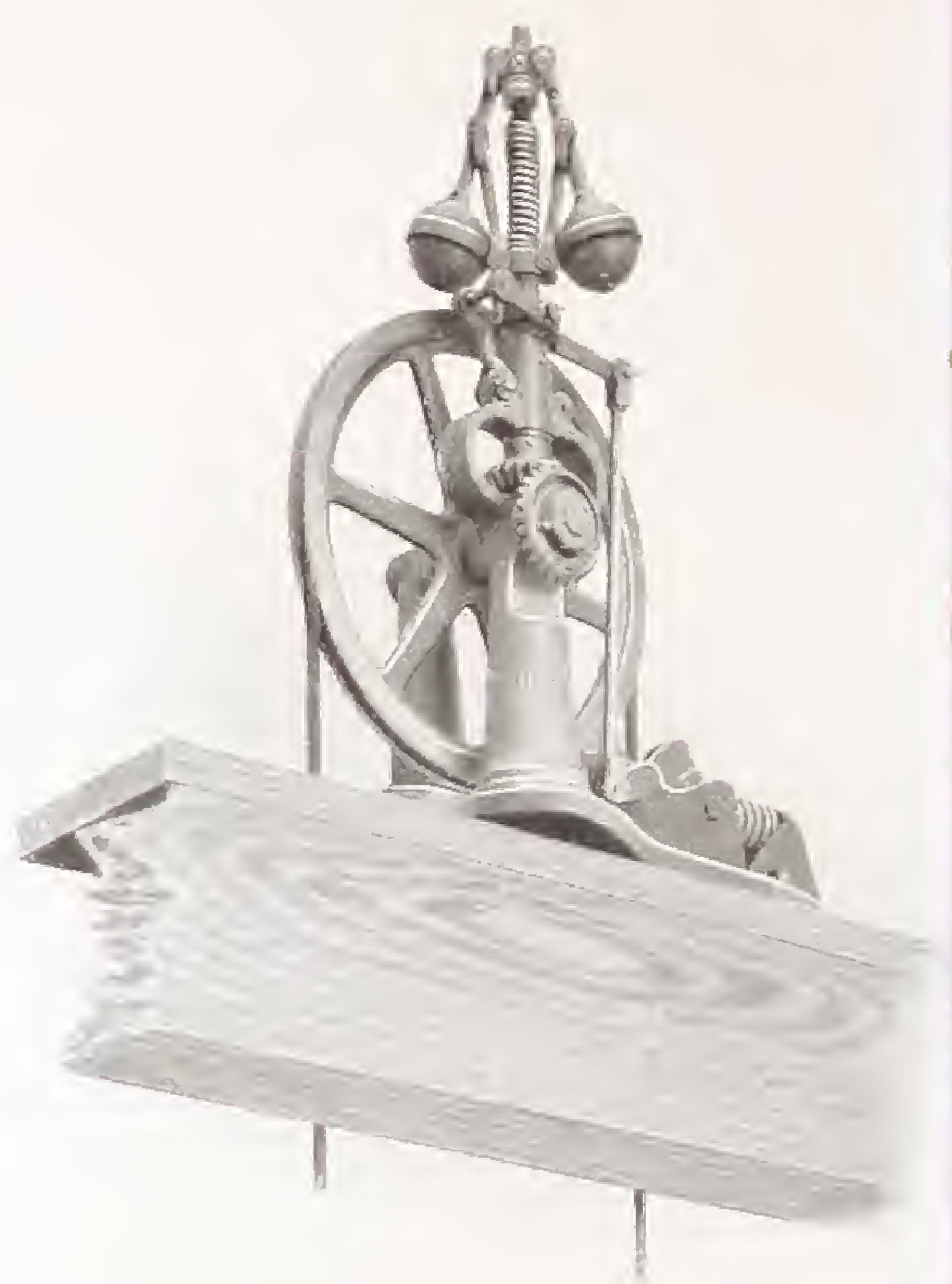


While the factor of safety in the construction of the Otis elevators is materially in excess of any strain to which they may be liable in their operation, each elevator is pro-

vided with special safeguards against all known forms of elevator accident. The illustration on opposite page shows the speed governor, safety clutch and its connections for steel I guides.

This governor has been tested in actual use for over thirty years, and has never failed to limit the speed of the car to the rate to which it is adjusted. Its action is also entirely independent of the lifting cables, so that in the possible contingency of the breakage of these cables it will bring into action the car safety devices to which it is connected and will bring the car to a safe and easy stop. Various standard types of car safeties and guides are made to suit the conditions to be met.

Illustration on following page shows speed governor, safety clutch and connections for hardwood guides.



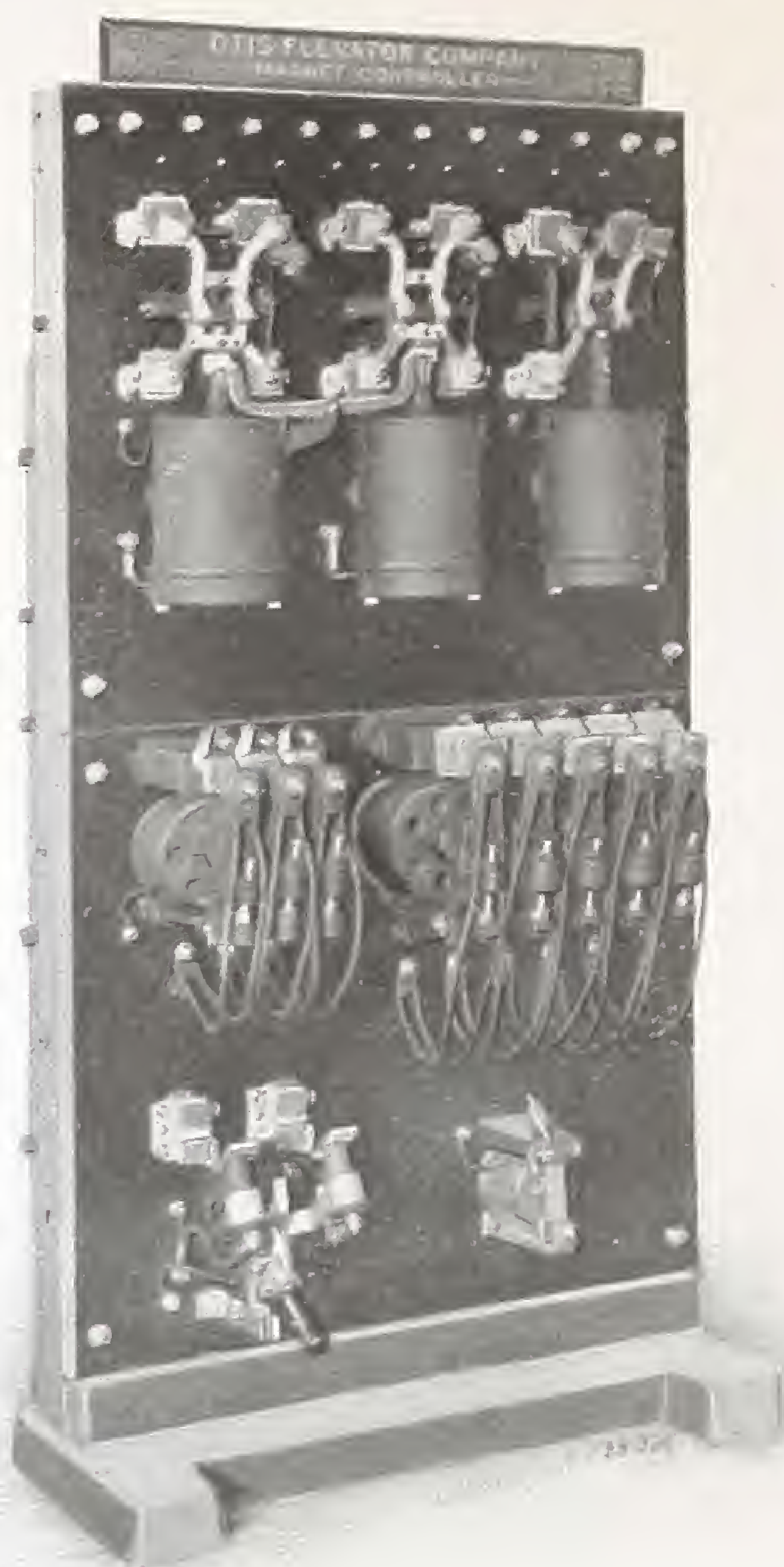
Otis Safety Governor and Triple Grip Safety Device

Otis Magnet Control

The Otis Electric Magnet Control, with Lever Car Switch, is the most improved type of electric elevator operating device, as with it the current is automatically and gradually admitted to the motor, enabling the operator to start and stop the car without shock or jar. This controlling device is constructed to secure the motor against damage by any overload or excess of current; these features are automatic in their operation, are independent of the operator in the car, and are designed to prevent more current being admitted to the motor than is required to do the maximum work of the elevator. We illustrate below, our standard car switch, and on the following page, two of our magnet control boards designed for different duties.



The Otis Lever Car Switch



Otis Magnet Controller



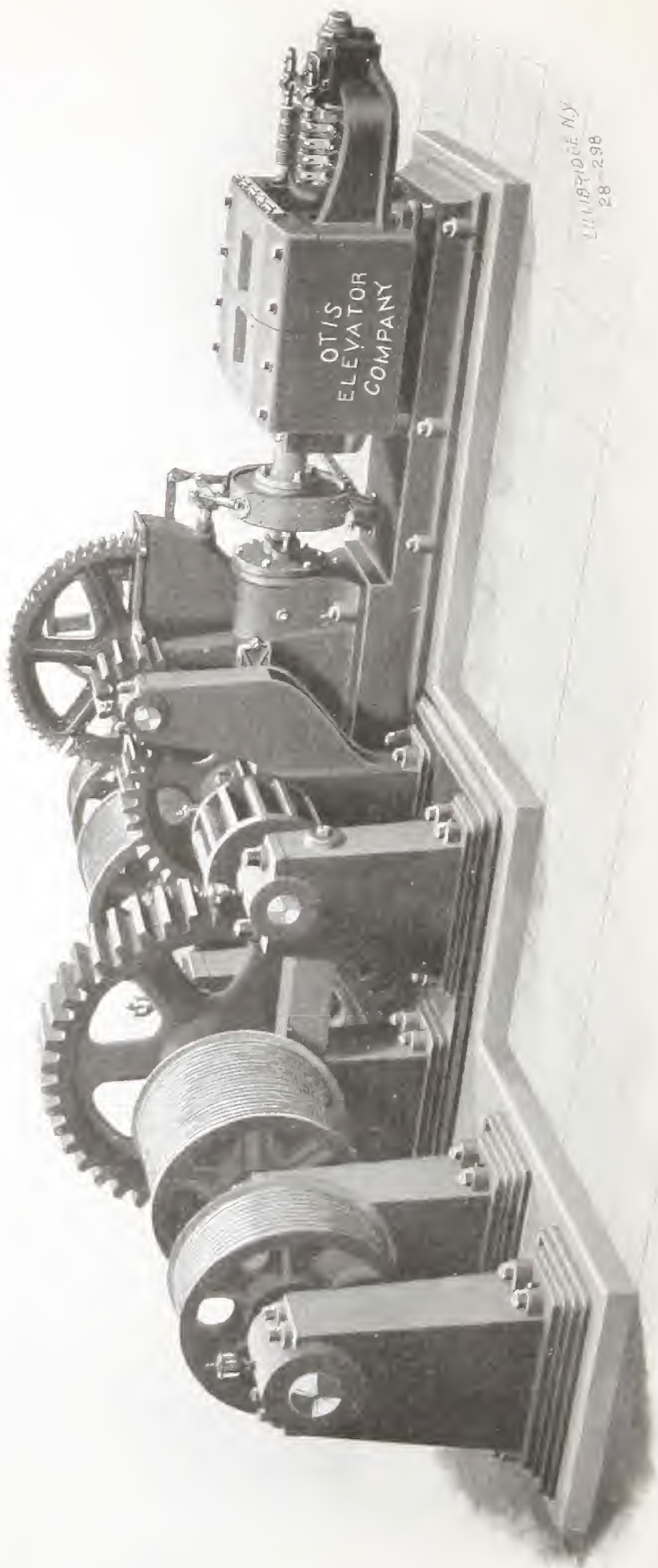
OTIS A. C. Magnet Controller



The Otis Steel Freight Platform



Freight Platform, Corner Post



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OTIS Tiptex Geared Electric Hoisting Engine

Triplex Geared Electric Hoisting Engine

The Illustration in opposite page shows our new Triplex Geared Electric Hoisting Engine. The detail of the engine is so carefully worked out in the drawing that it is hardly necessary to give a description of all its parts. While it is massive in construction, its compactness can be seen at once. The first section works giving or taking off gear from the shaft; the second section contains the shaft section of gearing, which is made and carefully set out, forming a perfect combination of gearing connecting with the lifting drum leading to the circular platform. The general arrangement and construction of the machine is compact and has been designed to give the greatest economy in operation and maintenance. The motor and controls embrace all of our latest in machinery. Every engine is electrically and mechanically tested and proved before leaving the works.

We build these engines having a lifting capacity from 10,000 to 100,000 pounds. They are specially designed for hoisting gas, oil, or lumber, having platforms 10 to 12 feet wide by 4 to 10 feet long, taking the load and so it comes from the street and delivering it to the loaded or empty car as desired.

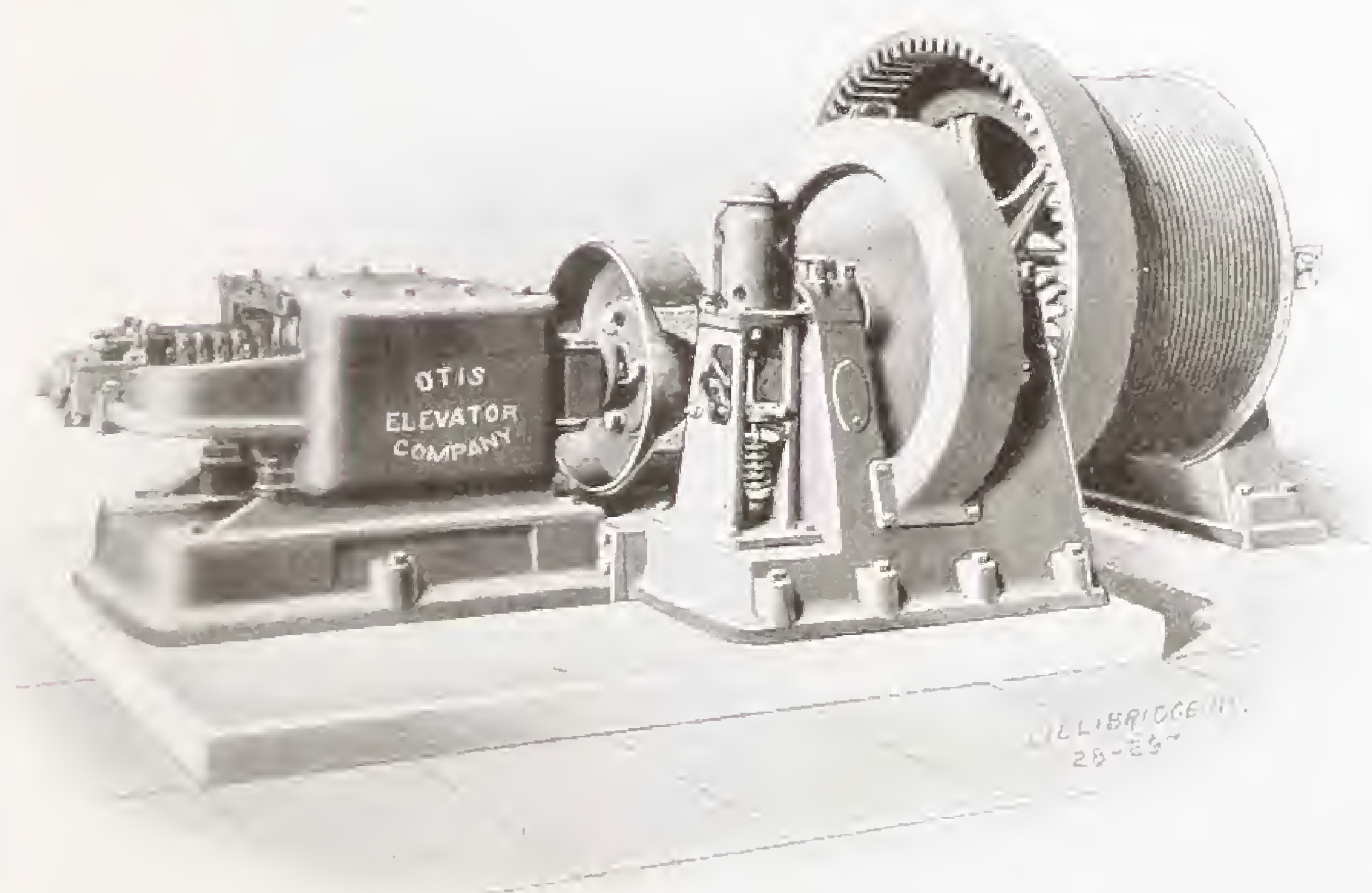
Fig. 10. — Compound Tapered Helical Gear, Front View.



Electric Hoisting Engines

The opposite illustration shows our Electric Hoisting Engine, designed and built for extra heavy service. We build them with single and double drums, and of lifting capacity from 4000 to 40,000 pounds. This type of engine is specially adapted for blast furnaces, both vertical and incline hoisting, with automatic stop and slow-down motion for skip. This slow-down motion is a special feature of the Otis Electric Engine, and is shown in the small drawing of the rear end of drum.

The engine is also adapted for mines, inclines, warehouses, etc. The engine is operated and controlled by our reversing switch and magnet control.



The Otis Single Drum Hoisting Engine



Figure 1. A. W. C. Co. (Patented) Elevator. (See page 100 for full description of the same.)

Information Required upon which to Base an Estimate

State character or kind of building.

Where building is located.

How many elevators will be required.

Whether for passenger or freight service.

Give the desired lifting capacity and speed of car.

State size of car or size of hatchway.

State about the value of car if for passenger service.

Give the travel, in feet or meters, of car or platform.

State the number of stories the elevator will travel.

If convenient, give diagram of building showing location of the elevators and where machinery can be placed.

If an *electric elevator* is required: if direct current, give voltage; if alternating current, give phase, voltage and cycles.

If hydraulic elevator, give water pressure from the street main at the level of the basement floor; or if the hydraulic system is to be used in connection with steam pump—by pressure tank in basement or tank on roof—give steam pressure available at the pump; if *electric* pump is to be used, give data for current as above.

If steam elevator, give pressure available at the engine.

If belt-power elevator is required, give position and distance of line shafting from hatchway. When belt machine is operated by motor, give data for current as above.

Give horse-power and class of your power plant.

Keep the maximum lifting capacity of the elevator as low as possible.

Notes—With all f. o. b. orders we will give full instructions and drawings for erecting.



Otis Elevator Company

New York, Chicago, San Francisco

Builders of

Hydraulic and Electric Passenger and Freight Elevators.

Electric Passenger Elevators and Dumb-waiters with push-button control.

Escalators (Moving Stairways).

Electric Hoists for Mines, Docks, Warehouses, Hoisting Operations, etc.

Electric Hoists for Blast Furnaces, for both Vertical and Incline Hoisting, with Automatic Skip for furnace duty and Slow-down Attachment.

Electric and Hydraulic Whip Hoists.

Electric Dock Hoists—portable and stationary.

Steam Hoisting Engines for blast furnaces, mines, inclines, etc.

Steam Freight Elevators.

Inclined Railways.

Worm and Spur Gear Power Elevators.

Gravity Conveyors.

Plans, estimates and specifications furnished.

Send for special pamphlet and illustrations.



